Notes from Upper Rio Grande Basin Water Operations Review Interdisciplinary NEPA Team Meeting; January 8, 2004; 1:00 PM; Corps of Engineers Conference Room, Albuquerque

In Attendance:

John Branstetter, USFWS
Marsha Carra, USBR
Ellen Dietrich, SAIC/Corps
Don Gallegos, Corps
Susan Goodan, SAIC/Corps
Rhea Graham, NMISC
Mark Horner, Corps
Ernie Jahnke, Corps
Jon Kehmeier, SWCA/NMISC
Conrad Keyes, Jr., Consultant to Corps
Bill Leibfried, SWCA/NMISC
Paula Makar, USBR
Clay Mathers, Corps
Claudia Oakes, SWCA/NMISC
Dennis Oyenque, Pueblo of San Juan
Jesse Roach, Sandia National Labs
Mike Roark, USGS/URGWOM
Garret Ross, USBR
Marc Sidlow, Corps/URGWOM
Gail Stockton, Corps
Valda Terauds, USBR
Scott Waltemeyer, USGS
Doug Wolf, Tetra Tech/Corps

- Gail Stockton chaired the meeting and requested that participants review the draft notes from the December meeting.
- Technical team representatives reported on each team's progress in analyzing URGWOM data.
  - Riparian and Wetlands Technical Team—Claudia Oakes
    - Claudia distributed a handout of graphs comparing the average annual discharge during the growing season under each alternative at three locations, Central gage, San Marcial floodway, and San Marcial LFCC gage. The team developed these to try to determine if the alternatives are different.
    - In order to conduct full impact analyses, the team is waiting for the FLO-2D model output.
    - The next tech team meeting will be held next Wednesday, January 14 at 1:00 p.m. at the SWCA office.
  - Hydrology and Hydraulics—Doug Wolf
    - Doug has completed FLO-2D model runs for 21 years from the base run to select hydrographs to use for modeling the action alternatives. He distributed a handout for the base run showing the model year (of the 40-year sequence), the duration and period, peak flow at Cochiti, and acres inundated by overbank flooding. These hydrographs were selected because they exceeded a 4,000-cfs peak flow below Cochiti.
    - He compared base run data from year 2026 to Alternative B-3 as an example of FLO-2D output. These data are included in a booklet Doug distributed to each tech team. He asked **all technical teams to review the booklet to determine whether they wish to request additional output from FLO-2D.**

- **Doug requested that technical teams provide criteria on what constitutes overbank flooding**. He needs to know the depth of flooding at a grid cell or group of grid cells, identified by grid cell number.
    - **The Riparian and Wetlands Technical Team is still interested in obtaining the normal channel shapefile from Doug.** This will help them determine which grid cells should be identified for overbank flooding.
    - **To obtain information from each team, Doug will start an e-mail to be passed around to each team, which will provide input on the overbank flooding criteria. The response from all technical teams must be submitted to Doug by close of business on Monday, January 12.** Doug plans to meet with the Riparian and Wetlands Technical Team next week to discuss their needs from FLO-2D.
- FLO-2D model runs should be completed by the end of January.

➢ Land Use, Socioeconomics, Agriculture, Recreation Technical Team—Susan Goodan

- Analysis of URGWOM output has begun with the data for agricultural impacts. Susan has been evaluating the water delivery shortfalls at diversion structures under each alternative and is considering how to display the data.

➢ Geomorphology, Sedimentation, and River Mechanics Technical Team—Paula Makar

- Paula is the new tech team leader and is based at the Bureau of Reclamation in Denver.
- The team is developing:
    - Flow duration curves for all alternatives at San Felipe, Albuquerque Diversion, San Acacia, and San Marcial
    - Sediment transport and concentrations by subreach
    - Rating curves
    - Aggradation/degradation by reach
    - Annual tributary volumes
    - Relative bed changes
    - Effective discharge and particle size
    - 1.5-, 2-, and 5-year return flow peaks. (1.5-year or 2-year flows are channel-forming discharges.)
- The team is working on developing a bank erosion index, but would like assistance from the other technical teams in identifying locations to focus bank erosion to those areas of interest. They got some location information from the Cultural Resources Technical Team, but would like to get more site-specific, if possible. **Paula will initiate additional discussions about this with the Cultural Resources Technical Team after meeting with her team.**
- **If other data are needed from the Geomorphology Technical Team, teams should notify Paula who will evaluate the requests with her team.**
- The Riparian and Wetlands Technical Team is looking for a measure of peak flow variability.
    - Scott Waltemeyer computed flow duration curves and peak frequencies below Cochiti, using historic data from before and after dam construction**. Scott will post this information on Team Link.**

- The Riparian Technical Team would like to discuss the peak flow variability further with the Geomorphology Technical Team.

➢ Cultural Resources Technical Team—Dennis Oyenque, Clay Mathers

- Dennis reported that the team will be addressing impacts to acequias, in cooperation with the Land Use Technical Team. He noted that acequias have been present for several hundred years and are considered sacred sites by pueblos.
- Clay developed the decision criteria worksheet that was distributed to the team for review before it was submitted to Valda Terauds.
- The team plans to discuss the site locations for bank erosion data. Due to the limitations of archaeological survey data, it will be difficult to provide exact locations.

➢ Water Quality Technical Team—Jon Kehmeier

- The team has been reviewing the URGWOM output and getting a feel for the impacts under each alternative, in particular peak discharge and reservoir storage.
- They are processing the data to prepare for running the water quality model.
- Their next meeting will be held next Wednesday, January 14 at 9:00 a.m. at the SWCA office.

➢ Aquatic Systems Technical Team—Bill Leibfried

- The aquatic habitat model is ready to run. They are just waiting to receive the new Alternative I data, after which all alternatives will be modeled at once.
- So far, they have analyzed the hydrologic data for the No Action alternative and Alternatives B, D, and E to determine the number of days with no to low flows and high flows, and the flood duration.
- In response to a question, Bill said that they are not getting depth-duration curves for the reservoirs. They will be evaluating only the change of littoral habitat.
- The Water Quality Technical Team could use an analysis of reservoir elevations and the rate of change under the alternatives.
- To evaluate the effects on fish communities, they will need the average velocities in each reach from FLO-2D.

❖ Gail welcomed Mike Roark of the USGS who is working on the URGWOM Technical Team. She also welcomed back Rhea Graham, NMISC Project Manager, who had taken a break from the day-to-day management of the Water Operations Review and EIS to work on development of the State Water Plan.

❖ Don Gallegos, Marc Sidlow, and Garret Ross gave an update on URGWOM Planning Model runs for the new Alternatives I-1, I-2, and I-3, which were established at the last ID NEPA Team meeting.

➢ These alternatives were run, but a problem was discovered with the model parameters set for the 3rd decade of I-1. The channel capacity below Abiquiu was set incorrectly, so **a new I-1 dataset will be sent out to all technical teams on Monday, January 12**. The data generated during the runoff period will reflect the primary changes.

➢ The Geomorphology Technical Team needs to reevaluate diversions into and past the Low Flow Conveyance Channel.

➢ They distributed a handout in which they graphed comparisons of model runs for all alternatives, such as cumulative and annual flows, evaporation, channel capacity, and credit water at specific locations. The PowerPoint file of these graphs will be posted on Team Link.

- Garret pointed out that cumulative data over the 40-year sequence may be a useful tool for showing the divergence of the data under each alternative at the end of the sequence.

❖ Glossaries from the Water Operations and Geomorphology Technical Teams are posted on Team Link. They may be useful for other teams to ensure that they use the terms correctly and consistently.

➡ **Glossaries developed by other teams should be posted on Team Link** also.

❖ Mike Roark is conducting a sensitivity analysis of the relationship between Abiquiu conservation storage and Elephant Butte credit water, using varying waiver dates and channel capacities.

❖ Valda Terauds reviewed the combined decision criteria submitted by all technical teams.

- Criteria and measures may be reviewed and changed later, as needed.
- There are some criteria for which inter-team negotiations are needed to coordinate the fixed point allocation numbers, especially related to ecosystem health.
- On recreation issues, the Land Use Technical Team must assign scores.
- Paula Makar pointed out that the Geomorphology Technical Team scores for the criteria listed were assigned according to data reliability, and should not be used for evaluation of impacts. After some discussion, **it was decided that this information should be used to characterize data quality, not as decision criteria. Further discussion between Valda and the tech team is needed to decide whether the team will develop and rank other decision criteria**.

➡ - **Valda requested input on how to measure effects on Indian Trust Assets.** To accomplish this, the ID NEPA Team should compile issues related to Indian Trust Assets, identify associated values, and then ask the technical teams to provide input into how they are addressing these issues.

➡ - **Technical teams should review the measures listed for all technical teams and determine how to coordinate or to fit together with other, related issues.**

❖ Technical teams must place all files for Chapter 4 of the EIS (Impact Analysis) in the new Chapter 4 section on Team Link. No changes to Chapter 3 sections may be made at this time. The technical editor is pulling together Chapters 1 through 3. Chapters 1 and 2 should be available for tech team review at the end of January, with Chapter 3 to follow in February.

❖ **The next Interdisciplinary NEPA Team meeting will be held on February 12 at 1:00 p.m. in the Bureau of Reclamation conference room in Albuquerque.**